JOINT INTEROPERABILITY & ENGINEERING ORGANIZATION

CENTER FOR SOFTWARE

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SOFTWARE TEST DESCRIPTION (STD)

FOR THE

AIRFIELDS SYSTEM

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(D R A F T)
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This document was prepared for the Defense Information Systems Agency (DISA), Joint Interoperability and Engineering Organization (JIEO), Center for Software (JEX), Software Development Department (JEXA), General Applications Division (JEXAG).

This Software Test Description describes the test preparations, test cases, and test procedures to be used to perform qualification testing of the re-engineered and re-hosted Airfields system. The system, which was previously part of the Worldwide Command and Control System (WWMCCS), currently resides as a segment of the Global Command and Control System's (GCCS') Common Operating Environment (COE).

Any questions, comments, or considerations relative to this Software Test Description should be directed to the following:

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SECTION 1.   SCOPE

1.1 <u>Identification</u>. The Airfields system provides the Worldwide Military Command and Control System (WWMCCS) community with a wide range of data about free world airfields. All data is supplied by the Defense Mapping Agency Aerospace Center (DMAAC) and is updated monthly. The Airfields Retrieval system was re-engineered from COBOL to the Ada 95 language and provides reports in several different formats both on- and off-line; One-Line, One-Page Summary, Multi-Page, Selective Data Retrieval, and Turnaround reports.

1.2 <u>System Overview</u>. The functional proponent for Airfields is the Joint Staff Logistics Directorate (J4). The office of primary responsibility (OPR) is the Operations Planning Division. The designated development Agency (DDA) is the Center for Software (JEX), Software Development Department (JEXA), General Applications Division (JEXAG).

The Airfields System has been in existence for approximately twenty years. In the mid to late 1980's, the Defense Mapping Agency Aerospace Center (DMAAC) changed the database format which resulted in the need to do a total redesign of the WWMCCS version of the system from COBOL 68 to COBOL 74. During that period, the access method also changed from Honeywell Indexed Sequential Processing (ISP) files to a flat file format.

Historically, WWMCCS users access the system approximately 100 times per month. As stated above, the database is owned by the Defense Mapping Agency Aerospace Center (DMAAC) and contains data on approximately 44,000 airfields and consists of over one million records.

The re-engineered system has also been re-hosted and runs in the Unix environment under Sun Solaris 2.3. Database manipulations are handled via Oracle 7, a relational database management system (RDBMS), and is written in the Ada 95 programming language. The front end of the system is managed with Screen Machine, a Graphical User Interface (GUI).

The system complies with the Global Command and Control System's (GCCS') Integration Standards and employs many standards such as the windowing capability and an extensive help facility to aid the user with system operation.

1.3 <u>Document Overview</u>. The purpose of this Software Test Description (STD) is to describe the test preparations, test cases, and test procedures to be used to perform qualification

testing of the re-engineered System. It describes the software test environment to be used for the testing, identifies the tests to be performed, and provides schedules for test activities.

2. **REFERENCED DOCUMENTS**

   a. Department of Defense, <u>Military Standard Software Development and Documentation</u> , MIL-STD-498, 5 Dec 1994

   b. Data Item Description (DID) number DI-IPSC-81439, <u>Software Test Description (STD)</u> , 5 Dec 1994

   c. Joint Interoperability & Engineering Organization (JIEO), Washington, DC, <u>Airfields Software Test Report (STR)</u> (Draft), 15 April 1995

   d. Joint Interoperability & Engineering Organization (JIEO), Washington, DC, <u>Airfields Software Version Description (SVD)</u> (Draft), 15 April 1995

   e. Joint Interoperability & Engineering Organization (JIEO), Washington, DC, <u>Airfields Software User Manual (SUM)</u> (Draft), 28 February 1995

3. **TEST PREPARATIONS** .

This section describes the preparations being made for testing the Airfields system.

3.1 <u>Airfields Retrieval System Test</u> . The following paragraphs describe the preparations being made for performing tests on the Airfields retrieval system.

3.1.1 <u>Hardware Preparation</u> . Hardware required to perform the tests has been installed and is in a state of readiness at the 5600 Columbia Pike facility in Falls Church, Virginia. The hardware consists of a SunSparc 10 workstation connected to a Local Area Network (LAN) port. The device has been loaded with Oracle 7, an unclassified subset of the database, and the Airfields software. The system runs under a Sun Solaris 2.3 Operating System. The name that has been assigned to the device is "Danny" and the IP address is 164117196.252.

3.1.2 <u>Software Preparation</u> . All software needed to perform tests on all Airfields CSCIs is resident on the hard drive of the Sun Sparc 10 located at the facility stated in the above paragraph. Software and/or utilities needed to operate the tests include the following:

a.   Oracle/SQL Version 7
       b.   Pro* Ada
       c.   Ada Run-Time
       d.   GNAT Ada 95 Compiler
       e.   Screen Machine (a Graphical User Interface)
       f.   Open Database Connectivity (ODBC) Version 2.0
       g.   Solaris 2.3 Operating System
       h.   Airfields Source Files and Data Managers
       i.   Airfields Executable Files
       j.   Airfields Database Tables, files and/or scripts
       k.   Sequel Loader Utility

3.1.3 Other Pre-test Preparations . Become familiar with the
system logon process. Become familiar with the use of MicroSoft
Windows an the use of a mouse. The following are step-by-step
instructions for logging into "Danny".

       a. At the log in prompt, enter the appropriate username and
       password <RETURN>.

       b. When the "Danny" prompt is displayed, type   *openwin*.
       This will place you into the Windows environment <RETURN>.

       c. Issue a *pwd* (print working directory) to determine the
       current directory <RETURN>.

       d. If necessary, issue a   *cd* (change directory) and change
       to the directory/path where the executable for the Airfields
       program resides <RETURN>.

       e. Key in the following: *airfield_adm airfields &* <RETURN>.
       The Airfields System will start up.

4.   **TEST DESCRIPTIONS**

4.1 One-Line Summary Report Test Description   . Subparagraphs of
Section 4.1 define testing of the One-Line Summary Report using
Country Code as selection criteria. The One-Line Summary Report
produces a pre-formatted one-line summary of information on
airfields in a category specified by the user. This report may
be displayed to computer screen or a hardcopy report may be
produced. User categories for retrieval specifications include
the following:

       a.   Country Code (CC)
       b.   Basic Encyclopedia (BE) Number
       c.   ICAO-FAA Code
       d.   Geographic Location (GEOLOC) Code

e.   Airfield Name and CC
       f.   Coordinate-Radius and CC

Selection criteria for the categories listed above may be further
limited by the following:

       a.   Security Classification (up to Secret/No Foreign (SNF)
             dissemination.
       b.   Airfield status (Military, Civilian, Joint, Active,
             Limited, Closed/abandoned/inactive, Heliport)
       c.   Maximum on Minimum Load Classification Numbers
       d.   Maximum or Minimum Runway length and width
       e.   Runway Surface Type
       f.   Maximum on Minimum Taxiway width

The user may choose an item from the categories listed above or
the defaulted values may be selected (e.g., if the default value
is selected for Airfield status, all categories (i.e., Military,
Civilian, Joint, Active, Limited, Closed/abandoned/inactive, and
heliport)) would be retrieved.

4.1.1   One-Line Summary Report Test Case .   The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific country code is made.

4.1.1.1   Requirements Addressed . This section addresses a test
of retrieval by county code and accepts all defaulted information
from the bottom of the Selection Criteria Panel. The test will
be run against an unclassified database subset using Hawaii data.

4.1.1.2   Prerequisite Conditions . As stated above, the Sun
Sparc workstation must be running under the Sun Solaris operating
system version 2.3. Other requirements/preparations as stated in
paragraphs 3.1.1 and 3.1.2 must be met. While performing this
test, timing constraints will also be measured and compared
against timing metrics gathered during regression testing of the
WWMCCS/baseline system. End-to-end processing of this retrieval
on the baseline system took approximately 2 minutes and 47
seconds to complete, while report generation took less than 14
seconds.

4.1.1.3   Test Inputs . This will be a test of a one-line
retrieval by country code 15 (Hawaii). The output from this test
is UNCLASSIFIED.

4.1.1.4   Expected Test Results . A one-line summary of
information about all airfields in Hawaii is the expected result.
The report will show the BE Number, the Coordinate, the status,
runway length and width, the surface type, and the airport

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capacity for every airfield name in the Hawaiian database.

4.1.1.5 <u>Criteria for Evaluating Results</u>. To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.1.1.6 <u>Test Procedure</u>. The following are the steps required
to attempt this test:

   a. Log onto the Sun Sparc 10 computer.

   b. Click on the Airfields ICON on the GCCS Main Panel.

   c. The Airfields Main Panel will display. Click on one of
       the following functions or choose <QUIT> to exit to the
       GCCS Main Panel:

           FILE   To Print of Exit
           REPORT   To access one of the report types
           HELP   To obtain help in the form of the
                      Airfields Software Users Manual

   d. Execute the following to run the One-Line Report (see
       Figure 5-4 of the Airfields Software User Manual (SUM))
       for Report Types and Selection Criteria Panels.

   e. Select *One-Line* from the Reports Type Panel.

   f. Select *Country Code* from the pull down menu generated
       by item e. above.

   g. When the Country Code/Name Selection Criteria Panel is
       displayed, scroll down the list of countries and select
       Hawaii.

   h. Press <ADD> to add Hawaii to the Selection List on the
       right side of the screen (see Figure 5-7: Country
       Code/Name Selection Criteria Panel in the Airfields
       Software User Manual (SUM)).

   i. Move to the lower portion of the screen and select a
       Security classification, airfield status, airfield
       criteria for runway, and airfield criteria for surface
       type or accept all defaults for these categories.
       Click on <OK>. This launches the retrieval.

4.1.1.7 <u>Assumptions and Constraints</u>. There are no assumptions

or constraints associated with this test.

4.2   One-Line Summary Report Test Description.   Subparagraphs of
Section 4.2 define testing of the One-Line Summary Report using
Basic Encyclopedia as selection criteria. See description in
paragraph 4.1 above for a description of the One-Line Summary
Report.

4.2.1   One-Line Summary Report Test Case   . The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific Basic Encyclopedia in a
is made.

4.2.1.1   Requirements Addressed . This section addresses a test
of retrieval by Basic Encyclopedia Number 0599000400 for Country
Code 15 (Hawaii) and accepts all defaulted information from the
bottom of the Selection Criteria Panel. The test will be run
against an unclassified database subset using Hawaii data.

4.2.1.2   Prerequisite Conditions . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 3 minutes and 50 seconds to complete,
while report generation took less than 6 seconds.

4.2.1.3   Test Inputs . This will be a test of a one-line
retrieval by country code 15 (Hawaii) and BE Number 0599000400.
The output from this test is UNCLASSIFIED.

4.2.1.4   Expected Test Results . A one-line summary report
containing information about the airfield in Hawaii for the
specified BE number is the expected result. The report will show
the airfield name, the Coordinate, the status, runway length and
width, the surface type, and the airport capacity for the
particular BE specified in the test.

4.2.1.5   Criteria for Evaluating Results   . To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.2.1.6   Test Procedure . The following are the steps required
to attempt this test:

      a.   Log onto the Sun Sparc 10 computer.

b.	Click on the Airfields ICON on the GCCS Main Panel.

c.	The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

> FILE	To Print of Exit
> REPORT	To access one of the report types
> HELP	To obtain help in the form of the Airfields Software Users Manual

d.	Execute the following to run the One-Line Report (see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

e.	Select *One-Line* from the Reports Type Panel.

f.	Select *Basic Encyclopedia (BE)* from the pull down menu generated by item e. above.

g.	When the BE Number Selection Criteria Panel is displayed, key in the BE Number to be retrieved.

h.	Press <ADD> to add place the BE Number into the Selection List on the right side of the screen (see Figure 5-8: BE Number Selection Criteria Panel in the Airfields Software User Manual (SUM)).

i.	Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.2.1.7	Assumptions and Constraints . There are no assumptions or constraints associated with this test.

4.3	One-Line Summary Report Test Description. Subparagraphs of Section 4.3 define testing of the One-Line Summary Report using ICAO/FAA Code as selection criteria. See description in paragraph 4.1 above for a general description of the One-Line Summary Report.

4.3.1	One-Line Summary Report Test Case . The purpose of this test is to determine validity of output received when a request for airfield information for a specific ICAO/FAA Code is made.

4.3.1.1	Requirements Addressed . This section addresses a test

of retrieval by ICAO code PHDH for Country Code 15 (Hawaii) and
accepts all defaulted information from the bottom of the
Selection Criteria Panel. The test will be run against an
unclassified database subset using Hawaii data.

4.3.1.2   Prerequisite Conditions . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 2 minutes and 4 seconds to complete,
while report generation took less than 11 seconds.

4.3.1.3   Test Inputs . This will be a test of a one-line
retrieval by country code 15 (Hawaii) and ICAO Code PHDH. The
output from this test is UNCLASSIFIED.

4.3.1.4   Expected Test Results . A one-line summary report
containing information about the airfield in Hawaii for the
specified ICAO code is the expected result. The report will show
the airfield name, the Coordinate, the status, runway length and
width, the surface type, and the airport capacity for the
particular ICAO code specified in the test.

4.3.1.5   Criteria for Evaluating Results   . To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.3.1.6   Test Procedure . The following are the steps required
to attempt this test:

   a.   Log onto the Sun Sparc 10 computer.

   b.   Click on the Airfields ICON on the GCCS Main Panel.

   c.   The Airfields Main Panel will display. Click on one of
         the following functions or choose <QUIT> to exit to the
         GCCS Main Panel:

               FILE   To Print of Exit
               REPORT   To access one of the report types
               HELP   To obtain help in the form of the
                          Airfields Software Users Manual

   d.   Execute the following to run the One-Line Report (see
         Figure 5-4 of the Airfields Software User Manual (SUM))

for Report Types and Selection Criteria Panels.

e.   Select *One-Line* from the Reports Type Panel.

f.   Select *ICAO-FAA Code* from the pull down menu generated
     by item e. above.

g.   When the ICAO-FAA Code Selection Criteria Panel is
     displayed, enter the ICAO-FAA Code to be retrieved.

h.   Press <ADD> to add the ICAO-FAA Code to the Selection
     List on the right side of the screen (see Figure 5-9:
     ICAO-FAA selection Criteria Panel in the Airfields
     Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a
     Security classification, airfield status, airfield
     criteria for runway, and airfield criteria for surface
     type or accept all defaults for these categories.
     Click on <OK>. This launches the retrieval.

4.3.1.7   Assumptions and Constraints .   There are no assumptions
or constraints associated with this test.

4.4   One-Line Summary Report Test Description.   Subparagraphs of
Section 4.4 define testing of the One-Line Summary Report for a
specific geographic location (GEOLOC) code as selection criteria.
See description in paragraph 4.1 above for a general description
of the One-Line Summary Report.

4.4.1   One-Line Summary Report Test Case .   The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific GEOLOC code is made. It
is not necessary to supply a country code when requesting a
specific GEOLOC.

4.4.1.1   Requirements Addressed . This section addresses a test
of retrieval by GEOLOC codes AWSD and MSSN and accepts all
defaulted information from the bottom of the Selection Criteria
Panel. The test will be run against an unclassified database
subset using Hawaii data. It has been previously determined that
the GEOLOCs listed above are Hawaii GEOLOCs.

4.4.1.2   Prerequisite Conditions . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing

metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 1 minute and 48 seconds to complete,
while report generation took less than 17 seconds.

4.4.1.3   Test Inputs . This will be a test of a one-line
retrieval by GEOLOC codes AWSD and MSSN. It has been previously
determined that these GEOLOCs fall within the boundaries of
Hawaii, therefore the output from this test is UNCLASSIFIED.

4.4.1.4   Expected Test Results . A one-line summary report
containing information about the airfield in Hawaii for the
specified GEOLOC codes is the expected result. The reports will
show the BE Number, the Coordinate, the status, runway length and
width, the surface type, and the airport capacity for the
particular Airfield Name specified in the test.

4.4.1.5   Criteria for Evaluating Results . To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.4.1.6   Test Procedure .   The following are the steps required
to attempt this test.

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of
the following functions or choose <QUIT> to exit to the
GCCS Main Panel:

        FILE   To Print of Exit
        REPORT   To access one of the report types
        HELP   To obtain help in the form of the
                    Airfields Software Users Manual

    d.   Execute the following to run the One-Line Report (see
Figure 5-4 of the Airfields Software User Manual (SUM))
for Report Types and Selection Criteria Panels.

    e.   Select *One-Line* from the Reports Type Panel.

    f.   Select *GEOLOC Code* from the pull down menu generated by
item e. above.

    g.   When the GEOLOC Selection Criteria Panel is displayed,

enter the GEOLOC to be retrieved.

    h.   Press <ADD> to add the GEOLOC to the Selection List on the right side of the screen (see Figure 5-10: GEOLOC Selection Criteria Panel in the Airfields Software User Manual (SUM)).

    i.   Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.4.1.7   <u>Assumptions and Constraints</u>. There are no assumptions or constraints associated with this test.

4.5   <u>One-Line Summary Report Test Description.</u>   Subparagraphs of Section 4.5 define testing of the One-Line Summary Report for a specific Airfield Name as selection criteria. See description in paragraph 4.1 above for a general description of the One-Line Summary Report.

4.5.1   <u>One-Line Summary Report Test Case</u>. The purpose of this test is to determine validity of output received when a request for airfield information for a specific Airfield Name is made. Since Airfields names are possibly not unique, it is necessary to supply a country code when requesting a specific Airfield Name.

4.5.1.1   <u>Requirements Addressed</u>. This section addresses a test of retrieval by airfield name "Puunene" and country code 15 (Hawaii) and accepts all defaulted information from the bottom of the Selection Criteria Panel. The test will be run against an unclassified database subset using Hawaii data. It has been previously determined that the Airfield Name listed above is unique to any other airfield in the database and that it is located in Hawaii.

4.5.1.2   <u>Prerequisite Conditions</u>. As stated above, the Sun Sparc workstation must be running under the Sun Solaris 2.3 operating system. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system. End-to-end processing of this retrieval on the baseline system took approximately 2 minutes and 2 seconds to complete, while report generation took less than 13 seconds.

4.5.1.3   <u>Test Inputs</u>. This will be a test of a one-line retrieval by airfield "Puunene". It has been previously

determined that this airfield is located in Hawaii, therefore the
output from this test is UNCLASSIFIED.

4.5.1.4   Expected Test Results .   A one-line summary report
containing information about the airfield in Hawaii for the
specified airfield name is the expected result.   The reports will
show the BE Number, the Coordinate, the status, runway length and
width, the surface type, and the airport capacity for the
particular airfield name specified in the test.

4.5.1.5   Criteria for Evaluating Results   .   To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.5.1.6   Test Procedure .   The following are the steps required
to attempt this test.

   a.   Log onto the Sun Sparc 10 computer.

   b.   Click on the Airfields ICON on the GCCS Main Panel.

   c.   The Airfields Main Panel will display.   Click on one of
        the following functions or choose <QUIT> to exit to the
        GCCS Main Panel:

             FILE   To Print of Exit
             REPORT   To access one of the report types
             HELP   To obtain help in the form of the
                         Airfields Software Users Manual

   d.   Execute the following to run the One-Line Report (see
        Figure 5-4 of the Airfields Software User Manual (SUM))
        for Report Types and Selection Criteria Panels.

   e.   Select *One-Line* from the Reports Type Panel.

   f.   Select *Airfield Name* from the pull down menu generated
        by item e. above.

   g.   When the Airfield Name Selection Criteria Panel is
        displayed, enter the Airfield Name to be retrieved.

   h.   Press <ADD> to add the Airfield Name to the Selection
        List on the right side of the screen (see Figure 5-6:
        Airfield Name Selection Criteria Panel in the Airfields
        Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a
              Security classification, airfield status, airfield
              criteria for runway, and airfield criteria for surface
              type or accept all defaults for these categories.
              Click on <OK>. This launches the retrieval.

4.5.1.7   Assumptions and Constraints .   There are no assumptions
or constraints associated with this test.

4.6   One-Line Summary Report Test Description.   Subparagraphs of
Section 4.6 define testing of the One-Line Summary Report for a
specific Coordinate as selection criteria. See description in
paragraph 4.1 above for a general description of the One-Line
Summary Report.

4.6.1   One-Line Summary Report Test Case .   The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific Coordinate is made.

4.6.1.1   Requirements Addressed .   This section addresses a test
of retrieval by Coordinate 214227N1575820W within a 500 mile
radius and accepts all defaulted information from the bottom of
the Selection Criteria Panel. The test will be run against an
unclassified database subset using Hawaii data. It has been
previously determined that this Coordinate and everything within
500 miles of it falls within the boundaries of Hawaii.

4.6.1.2   Prerequisite Conditions . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 2 minutes and 46 seconds to complete,
while report generation took less than 18 seconds.

4.6.1.3   Test Inputs .   This will be a test of a one-line
retrieval for Coordinate 214227N1575820W. The search will be
accomplished for all airfields within a 500 mile radius. It has
been previously determined that these coordinates fall within the
boundaries of Hawaii, therefore the output from this test is
UNCLASSIFIED.

4.6.1.4   Expected Test Results .   A one-line summary report
containing information about all the airfields in Hawaii that
fall within 500 miles of the selected coordinates is the expected
result. The reports will show the BE Number, the airfield
name(s), the status, runway length and width, the surface type,

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and the airport capacity for all the airfields that fall within a 500 mile radius of the specified coordinate that was specified in the test.

4.6.1.5   Criteria for Evaluating Results   . To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.6.1.6   Test Procedure . The following are the steps required to attempt this test.

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

            FILE   To Print of Exit
            REPORT   To access one of the report types
            HELP   To obtain help in the form of the
                        Airfields Software Users Manual

    d.   Execute the following to run the One-Line Report (see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

    e.   Select *One-Line* from the Reports Type Panel.

    f.   Select *Coordinate-Radius and CCs* from the pull down menu generated by item e. above.

    g.   When the Coordinate-Radius Selection Criteria Panel is displayed, enter the following information in the spaces provided:
            (1)   Country Name
            (2)   Degrees, minutes, and seconds for the
                    latitude and longitude
            (3)   Select the direction (North, South, East, or
                    West for latitude and longitude
            (4)   Number of miles for the radius search

    h.   Press <ADD> to add the information to the Selection List. (see Figure 5-11: Coordinate-Radius Selection Criteria Panel in the Airfields Software User Manual

(SUM)).

      i.   Move to the lower portion of the screen and select a
             Security classification, airfield status, airfield
             criteria for runway, and airfield criteria for surface
             type or accept all defaults for these categories.
             Click on <OK>. This launches the retrieval.

4.6.1.7 <u>Assumptions and Constraints</u>. There are no assumptions
or constraints associated with this test.

4.7 <u>One-Page Summary Report Test Description</u>. Subparagraphs of
Section 4.7 define testing of the One-Page Summary Report using
Country Code as selection criteria. The One-Page Summary Report
produces a Summary of information on airfields in a category
specified the user. This report may be displayed to computer
screen or a hardcopy report may be produced. User categories for
retrieval specifications include the following:

      a.   Country Code (CC)
      b.   Basic Encyclopedia (BE) Number
      c.   ICAO-FAA Code
      d.   Geographic Location (GEOLOC) Code
      e.   Airfield Name and CC
      f.   Coordinate-Radius and CC

Selection criteria for the One-Page Summary Report can be further
limited by the following criteria:

      a.   Security Classification (up to Secret/No Foreign (SNF)
             dissemination.
      b.   Airfield status (Military, Civilian, Joint, Active,
             Limited, Closed/abandoned/inactive, Heliport)
      c.   Maximum on Minimum Load Classification Number
      d.   Maximum or Minimum Runway length and width
      e.   Runway Surface Type
      f.   Maximum on Minimum Taxiway width.

The user may pick and choose from the categories listed above or
the defaulted values, which includes all of the above criteria,
may be selected (e.g., if the default value is selected, all
categories for Airfield status (i.e., Military, Civilian, Joint,
Active, Limited, Closed/abandoned/inactive, and heliport)) would
be retrieved.

4.7.1 <u>One-Page Summary Report Test Case</u>. The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific country code is made.

4.7.1.1   Requirements Addressed . This section addresses a test
of retrieval by county code and accepts all default information
from the bottom section of the Selection Criteria Panel. The
test will be run against an unclassified database subset using
Hawaii data.

4.7.1.2   Prerequisite Conditions . As stated above, the Sun
Sparc workstation must be running under the Sun Solaris operating
system version 2.3. Other requirements as stated in paragraphs
3.1.1 and 3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 2 minutes and 8 seconds to complete,
while report generation took less than 22 seconds.

4.7.1.3   Test Inputs . The following will be a test of a One-
Page Summary Report by country code 15 (Hawaii). The output from
this test is UNCLASSIFIED.

4.7.1.4   Expected Test Results . A Summary containing
information about all airfields in Hawaii is the expected result.

4.7.1.5   Criteria for Evaluating Results . To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.7.1.6   Test Procedure . The following are the steps required
to attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of
          the following functions or choose <QUIT> to exit to the
          GCCS Main Panel:

              FILE   To Print of Exit
              REPORT   To access one of the report types
              HELP   To obtain help in the form of the
                          Airfields Software Users Manual

    d.   Execute the following to run the One-Page Summary
          Report (see Figure 5-4 of the Airfields Software User
          Manual (SUM)) for Report Types and Selection Criteria
          Panels.

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e.   Select *One-Page Summary Report* from the Reports Type Panel.

f.   Select *Country Code* from the pull down menu generated by item e. above.

g.   When the Country Code/Name Selection Criteria Panel is displayed, scroll down the list of countries and select Hawaii.

h.   Press <ADD> to add Hawaii to the Selection List on the right side of the screen (see Figure 5-7: Country Code/Name Selection Criteria Panel in the Airfields Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.7.1.7   <u>Assumptions and Constraints</u>. There are no assumptions or constraints associated with this test.

4.8   <u>One-Page Summary Report Test Description.</u>   Subparagraphs of Section 4.8 define testing of the One-Page Summary Report using Basic Encyclopedia and Country Code as selection criteria. See description in paragraph 4.7 above for a description of the One-Page Summary Report.

4.8.1   <u>One-Page Summary Report Test Case</u>.   The purpose of this test is to determine validity of output received when a request for airfield information for a specific Basic Encyclopedia in a specific country code is made.

4.8.1.1   <u>Requirements Addressed</u>.   This section addresses a test of retrieval by Basic Encyclopedia Number 0599000409 for Country Code 15 (Hawaii) and accepts all defaulted information from the bottom of the Selection Criteria Panel. The test will be run against an unclassified database subset using Hawaii data.

4.8.1.2   <u>Prerequisite Conditions</u>. As stated above, the Sun Sparc workstation must be running under the Sun Solaris 2.3 operating system. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system. End-to-end processing of this retrieval on the baseline

system took approximately 1 minute and 44 seconds to complete, while report generation took less than 6 seconds.

4.8.1.3   Test Inputs . This will be a test of a One-Page Summary by country code 15 (Hawaii) and BE Number 0599000409.   The output from this test is UNCLASSIFIED.

4.8.1.4   Expected Test Results . A Summary of information about the airfield in Hawaii for the specified BE number is the expected result.

4.8.1.5   Criteria for Evaluating Results . To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.8.1.6 Test procedure. The following are the steps required to attempt this test:

a.   Log onto the Sun Sparc 10 computer.

b.   Click on the Airfields ICON on the GCCS Main Panel.

c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

          FILE   To Print of Exit
          REPORT   To access one of the report types
          HELP   To obtain help in the form of the
                      Airfields Software Users Manual

d.   Execute the following to run the One-Page Summary Report (see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

e.   Select *One-Page Summary Report* from the Reports Type Panel.

f.   Select *Basic Encyclopedia (BE)* from the pull down menu generated by item e. above.

g.   When the BE Number Selection Criteria Panel is displayed, key in the BE Number to be retrieved.

h.   Press <ADD> to add place the BE Number into the Selection List on the right side of the screen (see

Figure 5-8: BE Number Selection Criteria Panel in the
Airfields Software User Manual (SUM)).

i. Move to the lower portion of the screen and select a
    Security classification, airfield status, airfield
    criteria for runway, and airfield criteria for surface
    type or accept all defaults for these categories.
    Click on <OK>. This launches the retrieval.

4.8.1.7   Assumptions and Constraints .   There are no assumptions
or constraints associated with this test.

4.9   One-Page Summary Report Test Description.   Subparagraphs of
Section 4.9 define testing of the One-Page Summary Report using
ICAO/FAA Code and Country Code as selection criteria. See
description in paragraph 4.7 above for a general description of
the One-Page Summary Report.

4.9.1   One-Page Summary Report Test Case .   The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific ICAO/FAA Code in a
specific country code is made.

4.9.1.1   Requirements Addressed .   This section addresses a test
of retrieval by ICAO code PHBK for Country Code 15 (Hawaii) and
accepts all defaulted information from the bottom of the
Selection Criteria Panel. The test will be run against an
unclassified database subset using Hawaii data.

4.9.1.2   Prerequisite Conditions . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 1 minute and 59 seconds to complete,
while report generation took less than 9 seconds.

4.9.1.3   Test Inputs .   This will be a test of a One-Page Summary
by country code 15 (Hawaii) and ICAO Code PHBK. The output from
this test is UNCLASSIFIED.

4.9.1.4   Expected Test Results .   A One-Page Summary Report
containing information about the airfield in Hawaii for the
specified ICAO code is the expected result.

4.9.1.5   Criteria for Evaluating Results   .   To determine validity
of data received, the output received from this test will be

compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.9.1.6   Test Procedure . The following are the steps required to attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

> FILE   To Print of Exit
> REPORT   To access one of the report types
> HELP   To obtain help in the form of the Airfields Software Users Manual

    d.   Execute the following to run the One-Page Summary Report (see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

    e.   Select *One-Page Summary Report* from the Reports Type Panel.

    f.   Select *ICAO-FAA Code* from the pull down menu generated by item e. above.

    g.   When the ICAO-FAA Code Selection Criteria Panel is displayed, enter the ICAO-FAA Code to be retrieved.

    h.   Press <ADD> to add the ICAO-FAA Code to the Selection List on the right side of the screen (see Figure 5-9: ICAO-FAA selection Criteria Panel in the Airfields Software User Manual (SUM)).

    i.   Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.9.1.7   Assumptions and Constraints . There are no assumptions or constraints associated with this test.

4.10 One-Page Summary Report Test Description.   Subparagraphs of

Section 4.10 define testing of the One-Page Summary Report for a
specific geographic location (GEOLOC) code as selection criteria.
See description in paragraph 4.7 above for a general description
of the One-Page Summary Report.

4.10.1   One-Page Summary Report Test Case   .   The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific GEOLOC code is made.   It
is not necessary to supply a country code when requesting a
specific GEOLOC.

4.10.1.1   Requirements Addressed   .   This section addresses a test
of retrieval by GEOLOC codes LXKM and DJAD and accepts all
defaulted information from the bottom of the Selection Criteria
Panel.   The test will be run against an unclassified database
subset using Hawaii data.   It has been previously determined that
the GEOLOCs listed above are Hawaii GEOLOCs.

4.10.1.2   Prerequisite Conditions   . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system.   Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met.   While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system.   End-to-end processing of this retrieval on the baseline
system took approximately 1 minute and 2 seconds to complete,
while report generation took less than 8 seconds.

4.10.1.3   Test Inputs   .   This will be a test of a One-Page Summary
by GEOLOC codes LXKM and DJAD.   It has been previously determined
that these GEOLOCs fall within the boundaries of Hawaii,
therefore the output from this test is UNCLASSIFIED.

4.10.1.4   Expected Test Results   .   A One-Page Summary Report
containing information about the airfield in Hawaii for the
specified GEOLOC codes is the expected result.

4.10.1.5   Criteria for Evaluating Results   .   To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.10.1.6   Test Procedure   .   The following are the steps required
to attempt to complete this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

c.   The Airfields Main Panel will display. Click on one of
     the following functions or choose <QUIT> to exit to the
     GCCS Main Panel:

          FILE   To Print of Exit
          REPORT   To access one of the report types
          HELP   To obtain help in the form of the
                     Airfields Software Users Manual

d.   Execute the following to run the One-Page Summary
     Report (see Figure 5-4 of the Airfields Software User
     Manual (SUM)) for Report Types and Selection Criteria
     Panels.

e.   Select *One-Page Summary Report* from the Reports Type
     Panel.

f.   Select *GEOLOC Code* from the pull down menu generated by
     item e. above.

g.   When the GEOLOC Selection Criteria Panel is displayed,
     enter the GEOLOC to be retrieved.

h.   Press <ADD> to add the GEOLOC to the Selection List on
     the right side of the screen (see Figure 5-10: GEOLOC
     Selection Criteria Panel in the Airfields Software User
     Manual (SUM)).

i.   Move to the lower portion of the screen and select a
     Security classification, airfield status, airfield
     criteria for runway, and airfield criteria for surface
     type or accept all defaults for these categories.
     Click on <OK>. This launches the retrieval.

4.10.1.7   Assumptions and Constraints .   There are no assumptions
or constraints associated with this test.

4.11   One-Page Summary Report Test Description.   Subparagraphs of
Section 4.11 define testing of the One-Page Summary Report for a
specific Airfield Name as selection criteria. See description in
paragraph 4.7 above for a general description of the One-Page
Summary Report.

4.11.1   One-Page Summary Report Test Case .   The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific Airfield Name is made.
Since Airfields names are possibly not unique, it is necessary to
supply a country code when requesting a specific Airfield Name.

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4.11.1.1   Requirements Addressed .   This section addresses a test of retrieval by airfield name "Dillingham" and country code 15 (Hawaii) and accepts all defaulted information from the bottom of the Selection Criteria Panel.   The test will be run against an unclassified database subset using Hawaii data.   It has been previously determined that the Airfield Name listed above is unique to any other airfield in the database and that it is located in Hawaii.

4.11.1.2   Prerequisite Conditions . As stated above, the Sun Sparc workstation must be running under the Sun Solaris 2.3 operating system.   Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met.   While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system.   End-to-end processing of this retrieval on the baseline system took approximately 1 minute and 42 seconds to complete, while report generation took less than 12 seconds.

4.11.1.3   Test Inputs .   This will be a test of a One-Page Summary for airfield "Dillingham".   It has been previously determined that this airfield is located in Hawaii, therefore the output from this test is UNCLASSIFIED.

4.11.1.4   Expected Test Results .   A One-Page Summary Report containing information about the airfield in Hawaii for the specified airfield name is the expected result.

4.11.1.5   Criteria for Evaluating Results .   To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.11.1.6   Test Procedure .   The following are the steps required to attempt this test:

   a.   Log onto the Sun Sparc 10 computer.

   b.   Click on the Airfields ICON on the GCCS Main Panel.

   c.   The Airfields Main Panel will display.   Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

                FILE   To Print of Exit
                REPORT   To access one of the report types
                HELP   To obtain help in the form of the
                            Airfields Software Users Manual

d.   Execute the following to run the One-Page Summary
     Report (see Figure 5-4 of the Airfields Software User
     Manual (SUM)) for Report Types and Selection Criteria
     Panels.

e.   Select *One-Page Summary Report* from the Reports Type
     Panel.

f.   Select *Airfield Name* from the pull down menu generated
     by item e. above.

g.   When the Airfield Name Selection Criteria Panel is
     displayed, enter the Airfield Name to be retrieved.

h.   Press <ADD> to add the Airfield Name to the Selection
     List on the right side of the screen (see Figure 5-6:
     Airfield Name Selection Criteria Panel in the Airfields
     Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a
     Security classification, airfield status, airfield
     criteria for runway, and airfield criteria for surface
     type or accept all defaults for these categories.
     Click on <OK>. This launches the retrieval.

4.11.1.7 <u>Assumptions and Constraints</u>. There are no assumptions
or constraints associated with this test.

4.12 <u>One-Page Summary Report Test Description.</u> Subparagraphs of
Section 4.12 define testing of the One-Page Summary Report for a
specific Coordinate as selection criteria. See description in
paragraph 4.7 above for a general description of the One-Page
Summary Report.

4.12.1 <u>One-Page Summary Report Test Case</u>. The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific Coordinate is made.

4.12.1.1 <u>Requirements Addressed</u>. This section addresses a test
of retrieval by Coordinate 214228N1575830W within a 500 mile
radius and accepts all defaulted information from the bottom of
the Selection Criteria Panel. The test will be run against an
unclassified database subset using Hawaii data. It has been
previously determined that this Coordinate and everything within
500 miles of it falls within the boundaries of Hawaii.

4.12.1.2 <u>Prerequisite Conditions</u>. As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating

system. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system. End-to-end processing of this retrieval on the baseline system took approximately 2 minutes and 5 seconds to complete, while report generation took less than 21 seconds.

4.12.1.3   Test Inputs . This will be a test of a One-Page Summary for Coordinate 214228N1575830W. The search will be accomplished for all airfields within a 500 mile radius. It has been previously determined that these coordinates fall within the boundaries of Hawaii, therefore the output from this test is UNCLASSIFIED.

4.12.1.4   Expected Test Results . A One-Page Summary Report containing information about the airfields in Hawaii for all the coordinates within a 500 mile radius of the specified Coordinate is the expected result.

4.12.1.5   Criteria for Evaluating Results . To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.12.1.6   Test Procedure . The following are the steps required to attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

                FILE   To Print of Exit
                REPORT   To access one of the report types
                HELP   To obtain help in the form of the
                                   Airfields Software Users Manual

    d.   Execute the following to run the One-Page Summary Report (see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

    e.   Select *One-Page Summary Report* from the Reports Type Panel.

f.   Select *Coordinate-Radius and CCs* from the pull down menu generated by item e. above.

g.   When the Coordinate-Radius Selection Criteria Panel is displayed, enter the following information in the spaces provided:
  (1) Country Name
  (2) Degrees, minutes, and seconds for the latitude and longitude

  (3) Select the direction (North, South, East, or West for latitude and longitude
  (4) Number of miles for the radius search

h.   Press <ADD> to add the information to the Selection List on the right side of the screen (see Figure 5-11: Coordinate-Radius Selection Criteria Panel in the Airfields Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.12.1.7   <u>Assumptions and Constraints</u>. There are no assumptions or constraints associated with this test.

4.13   <u>Multi-Page Report Test</u>. Subparagraphs of Section 4.13 define testing of the Multi-Page Report using Country Code as selection criteria. The Multi-Page Report produces a multitude of information on airfields in a category specified the user. The report may be printed on hardcopy or it may be displayed to computer screen. User categories for retrieval specifications include the following:

a.   Country Code (CC)
b.   Basic Encyclopedia (BE) Number
c.   ICAO-FAA Code
d.   Geographic Location (GEOLOC) Code
e.   Airfield Name and CC
f.   Coordinate-Radius and CC

Selection criteria for the Multi-Page Report can be further limited by the following criteria:

a.   Security Classification (up to Secret/No Foreign (SNF) dissemination.

b.　　Airfield status (Military, Civilian, Joint, Active,
　　　　　　　Limited, Closed/abandoned/inactive, Heliport)
　　　　c.　　Maximum on Minimum Load Classification Number
　　　　d.　　Maximum or Minimum Runway length and width
　　　　e.　　Runway Surface Type
　　　　f.　　Maximum on Minimum Taxiway width.

The user may pick and choose from the categories listed above or
the defaulted values, which includes all of the above criteria,
may be selected (e.g., if the default value is selected, all
categories for Airfield status (i.e., Military, Civilian, Joint,
Active, Limited, Closed/abandoned/inactive, and heliport)) would
be retrieved.

4.13.1   Multi-Page Report Test Case .   The purpose of this test is
to determine validity of output received when a request for
airfield information for a specific country code is made.

4.13.1.1   Requirements Addressed . This section addresses a test
of retrieval by county code and accepts all default information.
The test will be run against an unclassified database subset
using Hawaii data.

4.13.1.2   Prerequisite Conditions .   As stated above, the Sun
Sparc workstation must be running under the Sun Solaris operating
system version 2.3. Other requirements as stated in paragraphs
3.1.1 and 3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 1 minute and 29 seconds to complete,
while report generation took less than 6 seconds.

4.13.1.3   Test Inputs . The following will be a test of a Multi-
Page retrieval by country code 15 (Hawaii). The output from this
test is UNCLASSIFIED.

4.13.1.4   Expected Test Results . A report containing several to
many pages of information about all airfields in Hawaii is the
expected result.

4.13.1.5   Criteria for Evaluating Results . To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.13.1.6   Test Procedure . The following are the steps required
to attempt this test:

a. Log onto the Sun Sparc 10 computer.

b. Click on the Airfields ICON on the GCCS Main Panel.

c. The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

       FILE   To Print of Exit
       REPORT   To access one of the report types
       HELP   To obtain help in the form of the
                    Airfields Software Users Manual

d. Execute the following to run the Multi-Page Report (see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

e. Select *Multi-Page Report* from the Reports Type Panel.

f. Select *Country Code* from the pull down menu generated by item e. above.

g. When the Country Code/Name Selection Criteria Panel is displayed, scroll down the list of countries and select Hawaii.

h. Press <ADD> to add Hawaii to the Selection List on the right side of the screen (see Figure 5-7: Country Code/Name Selection Criteria Panel in the Airfields Software User Manual (SUM)).

i. Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.13.1.7 <u>Assumptions and Constraints</u>. There are no assumptions or constraints associated with this test.

4.14 <u>Multi-Page Report Test Description.</u> Subparagraphs of Section 4.14 define testing of the Multi-Page Report using Basic Encyclopedia and Country Code as selection criteria. See description in paragraph 4.13 above for a description of the Multi-Page Report.

4.14.1 <u>Multi-Page Report Test Case</u>. The purpose of this test is to determine validity of output received when a request for

airfield information for a specific Basic Encyclopedia in a
specific country code is made.

4.14.1.1   Requirements Addressed .   This section addresses a test
of retrieval by Basic Encyclopedia Number 0599000409 for Country
Code 15 (Hawaii) and accepts all defaulted information from the
bottom of the selection screen.   The test will be run against an
unclassified database subset using Hawaii data.

4.14.1.2   Prerequisite Conditions   . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system.   Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met.   While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system.   End-to-end processing of this retrieval on the baseline
system took approximately 1 minute and 40 seconds to complete,
while report generation took less than 14 seconds.

4.14.1.3   Test Inputs .   This will be a test of a Multi-Page
retrieval by country code 15 (Hawaii) and BE Number 0599000409.
The output from this test is UNCLASSIFIED.

4.14.1.4   Expected Test Results .   A report containing several to
many pages of information about the airfield in Hawaii for the
specified BE number is the expected result.

4.14.1.5   Criteria for Evaluating Results   .   To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.14.1.6 Test procedure .   The following are the steps required to
attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display.   Click on one of
       the following functions or choose <QUIT> to exit to the
       GCCS Main Panel:

          FILE   To Print of Exit
          REPORT   To access one of the report types
          HELP   To obtain help in the form of the
                    Airfields Software Users Manual

    d.   Execute the following to run the Multi-Page Report (see

Figure 5-4 of the Airfields Software User Manual (SUM))
for Report Types and Selection Criteria Panels.

e.   Select *Multi-Page Report* from the Reports Type Panel.

f.   Select *Basic Encyclopedia (BE)* from the pull down menu
     generated by item e. above.

g.   When the BE Number Selection Criteria Panel is
     displayed, key in the BE Number to be retrieved.

h.   Press <ADD> to add place the BE Number into the
     Selection List on the right side of the screen (see
     Figure 5-8: BE Number Selection Criteria Panel in the
     Airfields Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a
     Security classification, airfield status, airfield
     criteria for runway, and airfield criteria for surface
     type or accept all defaults for these categories.
     Click on <OK>. This launches the retrieval.

4.14.1.7   Assumptions and Constraints .   There are no assumptions
or constraints associated with this test.

4.15   Multi-Page Report Test Description.   Subparagraphs of
Section 4.15 define testing of the Multi-Page Report using
ICAO/FAA Code and Country Code as selection criteria. See
description in paragraph 4.13 above for a general description of
the Multi-Page Report.

4.15.1 Multi-Page Report Test Case .   The purpose of this test is
to determine validity of output received when a request for
airfield information for a specific ICAO/FAA Code in a specific
country code is made.

4.15.1.1   Requirements Addressed .   This section addresses a test
of retrieval by ICAO code PHBK for Country Code 15 (Hawaii) and
accepts all defaulted information from the bottom of the
Selection Criteria Panel. The test will be run against an
unclassified database subset using Hawaii data.

4.15.1.2   Prerequisite Conditions . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline

system. End-to-end processing of this retrieval on the baseline system took approximately 1 minute and 49 seconds to complete, while report generation took less than 21 seconds.

4.15.1.3   Test Inputs . This will be a test of a Multi-Page retrieval by country code 15 (Hawaii) and ICAO Code PHBK. The output from this test is UNCLASSIFIED.

4.15.1.4   Expected Test Results . A report containing several to many pages of information about the airfield in Hawaii for the specified ICAO code is the expected result.

4.15.1.5   Criteria for Evaluating Results . To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.15.1.6   Test Procedure . The following are the steps required to attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

        FILE   To Print of Exit
        REPORT   To access one of the report types
        HELP   To obtain help in the form of the Airfields Software Users Manual

    d.   Execute the following to run the Multi-Page Report (see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

    e.   Select *Multi-Page Report* from the Reports Type Panel.

    f.   Select *ICAO-FAA Code* from the pull down menu generated by item e. above.

    g.   When the ICAO-FAA Code Selection Criteria Panel is displayed, enter the ICAO-FAA Code to be retrieved.

    h.   Press <ADD> to add the ICAO-FAA Code to the Selection List on the right side of the screen (see Figure 5-9: ICAO-FAA selection Criteria Panel in the Airfields

Software User Manual (SUM)).

      i.   Move to the lower portion of the screen and select a
            Security classification, airfield status, airfield
            criteria for runway, and airfield criteria for surface
            type or accept all defaults for these categories.
            Click on <OK>. This launches the retrieval.

4.15.1.7 <u>Assumptions and Constraints</u>. There are no assumptions
or constraints associated with this test.

4.16 <u>Multi-Page Report Test Description.</u> Subparagraphs of
Section 4.16 define testing of the Multi-Page Report for a
specific geographic location (GEOLOC) code as selection criteria.
See description in paragraph 4.13 above for a general description
of the Multi-Page Report.

4.16.1 <u>Multi-Page Report Test Case</u>. The purpose of this test is
to determine validity of output received when a request for
airfield information for a specific GEOLOC code is made. It is
not necessary to supply a country code when requesting a specific
GEOLOC.

4.16.1.1 <u>Requirements Addressed</u>. This section addresses a test
of retrieval by GEOLOC codes LXKM and DJAD and accepts all
defaulted information from the bottom of the Selection Criteria
Panel. The test will be run against an unclassified database
subset using Hawaii data. It has been previously determined that
the GEOLOCs listed above are Hawaii GEOLOCs.

4.16.1.2 <u>Prerequisite Conditions</u>. As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 1 minute and 37 seconds to complete,
while report generation took less than 11 seconds.

4.16.1.3 <u>Test Inputs</u>. This will be a test of a Multi-Page
retrieval by GEOLOC codes LXKM and DJAD. It has been previously
determined that these GEOLOCs fall within the boundaries of
Hawaii, therefore the output from this test is UNCLASSIFIED.

4.16.1.4 <u>Expected Test Results</u>. A report containing several to
many pages of information about the airfield in Hawaii for the
specified GEOLOC codes is the expected result.

4.16.1.5   <u>Criteria for Evaluating Results</u>.   To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.16.1.6   <u>Test Procedure</u>.   The following are the steps required
to attempt to complete this test:

a.   Log onto the Sun Sparc 10 computer.

b.   Click on the Airfields ICON on the GCCS Main Panel.

c.   The Airfields Main Panel will display. Click on one of
the following functions or choose <QUIT> to exit to the
GCCS Main Panel:

FILE   To Print of Exit
REPORT   To access one of the report types
HELP   To obtain help in the form of the
            Airfields Software Users Manual

d.   Execute the following to run the Multi-Page Report (see
Figure 5-4 of the Airfields Software User Manual (SUM))
for Report Types and Selection Criteria Panels.

e.   Select *Multi-Page Report* from the Reports Type Panel.

f.   Select *GEOLOC Code* from the pull down menu generated by
item e. above.

g.   When the GEOLOC Selection Criteria Panel is displayed,
enter the GEOLOC to be retrieved.

h.   Press <ADD> to add the GEOLOC to the Selection List on
the right side of the screen (see Figure 5-10: GEOLOC
Selection Criteria Panel in the Airfields Software User
Manual (SUM)).

i.   Move to the lower portion of the screen and select a
Security classification, airfield status, airfield
criteria for runway, and airfield criteria for surface
type or accept all defaults for these categories.
Click on <OK>. This launches the retrieval.

4.16.1.7   <u>Assumptions and Constraints</u>.   There are no assumptions
or constraints associated with this test.

4.17 Multi-Page Report Test Description.   Subparagraphs of Section 4.17 define testing of the Multi-Page Report for a specific Airfield Name as selection criteria. See description in paragraph 4.13 above for a general description of the Multi-Page Report.

4.17.1 Multi-Page Report Test Case . The purpose of this test is to determine validity of output received when a request for airfield information for a specific Airfield Name is made. Since Airfields names are possibly not unique, it is necessary to supply a country code when requesting a specific Airfield Name.

4.17.1.1 Requirements Addressed . This section addresses a test of retrieval by airfield name "Dillingham" and country code 15 (Hawaii) and accepts all defaulted information from the bottom of the Selection Criteria Panel. The test will be run against an unclassified database subset using Hawaii data. It has been previously determined that the Airfield Name listed above is unique to any other airfield in the database and that it is located in Hawaii.

4.17.1.2 Prerequisite Conditions . As stated above, the Sun Sparc workstation must be running under the Sun Solaris 2.3 operating system. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system. End-to-end processing of this retrieval on the baseline system took approximately 1 minute and 29 seconds to complete, while report generation took less than 18 seconds.

4.17.1.3 Test Inputs . This will be a test of a Multi-Page retrieval by airfield "Dillingham". It has been previously determined that this airfield is located in Hawaii, therefore the output from this test is UNCLASSIFIED.

4.17.1.4 Expected Test Results . A report containing several to many pages of information about the airfield in Hawaii for the specified airfield name is the expected result.

4.17.1.5 Criteria for Evaluating Results . To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.17.1.6 Test Procedure . The following are the steps required to attempt this test:

 a. Log onto the Sun Sparc 10 computer.

b. Click on the Airfields ICON on the GCCS Main Panel.

c. The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

FILE   To Print of Exit
REPORT   To access one of the report types
HELP   To obtain help in the form of the
            Airfields Software Users Manual

d. Execute the following to run the Multi-Page Report (see Figure 5-4 of the Airfields Software User Manual (SUM) for Report Types and Selection Criteria Panels.

e. Select *Multi-Page Report* from the Reports Type Panel.

f. Select *Airfield Name* from the pull down menu generated by item e. above.

g. When the Airfield Name Selection Criteria Panel is displayed, enter the Airfield Name to be retrieved.

h. Press <ADD> to add the Airfield Name to the Selection List on the right side of the screen (see Figure 5-6: Airfield Name Selection Criteria Panel in the Airfields Software User Manual (SUM)).

i. Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.17.1.7 <u>Assumptions and Constraints</u>. There are no assumptions or constraints associated with this test.

4.18 <u>Multi-Page Report Test Description.</u> Subparagraphs of Section 4.18 define testing of the Multi-Page Report for a specific Coordinate as selection criteria. See description in paragraph 4.13 above for a general description of the Multi-Page Report.

4.18.1 <u>Multi-Page Report Test Case</u>. The purpose of this test is to determine validity of output received when a request for airfield information for a specific Coordinate is made.

4.18.1.1 <u>Requirements Addressed</u>. This section addresses a test

of retrieval by Coordinate 214228N1575830W within a 500 mile
radius and accepts all defaulted information from the bottom of
the Selection Criteria Panel. The test will be run against an
unclassified database subset using Hawaii data. It has been
previously determined that this Coordinate and everything within
500 miles of it falls within the boundaries of Hawaii.

4.18.1.2 Prerequisite Conditions . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 2 minutes and 16 seconds to complete,
while report generation took less than 13 seconds.

4.18.1.3 Test Inputs . This will be a test of a Multi-Page
retrieval for Coordinate 214228N1575830W. The search will be
accomplished for all airfields within a 500 mile radius of the
specified coordinate. It has been previously determined that
these coordinates fall within the boundaries of Hawaii, therefore
the output from this test is UNCLASSIFIED.

4.18.1.4 Expected Test Results . A report containing several to
many pages of information for all airfields within a 500 mile
radius of the specified Coordinate is the expected result.

4.18.1.5 Criteria for Evaluating Results . To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.18.1.6 Test Procedure . The following are the steps required
to attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of
          the following functions or choose <QUIT> to exit to the
          GCCS Main Panel:

                    FILE   To Print of Exit
                    REPORT   To access one of the report types
                    HELP   To obtain help in the form of the
                                Airfields Software Users Manual

d.   Execute the following to run the Multi-Page Report (see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

e.   Select *Multi-Page Report* from the Reports Type Panel.

f.   Select *Coordinate-Radius and CCs* from the pull down menu generated by item e. above.

g.   When the Coordinate-Radius Selection Criteria Panel is displayed, enter the following information in the spaces provided:
     (1)   Country Name
     (2)   Degrees, minutes, and seconds for the latitude and longitude

     (3)   Select the direction (North, South, East, or West for latitude and longitude
     (4)   Number of miles for the radius search

h.   Press <ADD> to add the information to the Selection List on the right side of the screen (see Figure 5-11: Coordinate-Radius Selection Criteria Panel in the Airfields Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.18.1.7   Assumptions and Constraints .   There are no assumptions or constraints associated with this test.

4.19   Turnaround Calculation Test . Subparagraphs of Section 4.19 define testing of the Turnaround calculation using Country Code as selection criteria. The Turnaround Report determines a theoretical turnaround of user-specified aircraft through an airfield based on the downtime required for that aircraft and the parking space available at the airfield. Specified ground times by aircraft type and an airfield's operating hours are also factors to be considered. The report may be printed on hardcopy or it may be displayed to computer screen. User categories for retrieval specifications include the following:

a.   Country Code (CC)
b.   Basic Encyclopedia (BE) Number
c.   ICAO-FAA Code

d.   Geographic Location (GEOLOC) Code
         e.   Airfield Name and CC
         f.   Coordinate-Radius and CC

Selection criteria for the Turnaround Report can be further
limited by entering turnaround calculation values/Aircraft Codes
(up to 3).

Additional criteria for simulation purposes can also be selected
as follows:

         a.   Aircraft square feet
         b.   Ground time required (in hours)
         c.   Minimum load class number or largest aircraft capacity
         d.   Runway length required
         e.   Taxiway width required

4.19.1 <u>Turnaround Calculation Test Case</u>.   The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific country code is made.

4.19.1.1 <u>Requirements Addressed</u>. This section addresses a test
of retrieval by county code and accepts all default information.
The test will be run against an unclassified database subset
using Hawaii data.

4.19.1.2 <u>Prerequisite Conditions</u>. As stated above, the Sun
Sparc workstation must be running under the Sun Solaris operating
system version 2.3. Other requirements as stated in paragraphs
3.1.1 and 3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 1 minute and 53 seconds to complete,
while report generation took less than 23 seconds.

4.19.1.3 <u>Test Inputs</u>. The following will be a test of a
Turnaround calculation for an airport in country code 15
(Hawaii). The output from this test is UNCLASSIFIED.

4.19.1.4 <u>Expected Test Results</u>. A turnaround capability report
showing the number of parking spaces available for the country
selected is the expected result. The report will also show the
country name, the BE number, the airfield name and alternate
name, the ICAO code, the coordinate for the airfield, the hours
of operation, the Apron square feet, the hardstand square feet,
total square feet, the primary runway length, the taxiway width,
the elevation and the LCN/Capacity. The LCN/capacity will be
displayed as follows:

a.   Aircraft Type
        b.   Square Feet Required
        c.   Ground Time
        d.   Number Aircraft Parked and
        e.   The turnaround per 24-hour period

4.19.1.5   Criteria for Evaluating Results .   To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.19.1.6   Test Procedure .   The following are the steps required
to attempt this test:

   a.   Log onto the Sun Sparc 10 computer.

   b.   Click on the Airfields ICON on the GCCS Main Panel.

   c.   The Airfields Main Panel will display. Click on one of
        the following functions or choose <QUIT> to exit to the
        GCCS Main Panel:

              FILE   To Print of Exit
              REPORT   To access one of the report types
              HELP   To obtain help in the form of the
                          Airfields Software Users Manual

   d.   Execute the following to run the Turnaround Calculator
        (see Figure 5-4 of the Airfields Software User Manual
        (SUM)) for Report Types and Selection Criteria Panels.

   e.   Select *Turnaround Calculator* from the Reports Type
        Panel.

   f.   Select *Country Code* from the pull down menu generated
        by item e. above.

   g.   When the Country Code/Name Selection Criteria Panel is
        displayed, scroll down the list of countries and select
        Hawaii.

   h.   Press <ADD> to add Hawaii to the Selection List on the
        right side of the screen (see Figure 5-7: Country
        Code/Name Selection Criteria Panel in the Airfields
        Software User Manual (SUM)).

   i.   Move to the lower portion of the screen and select a
        Security classification, airfield status, airfield

criteria for runway, and airfield criteria for surface
type or accept all defaults for these categories.
Click on <OK>. This launches the retrieval.

4.19.1.7 Assumptions and Constraints . There are no assumptions
or constraints associated with this test.

4.20 Turnaround Calculation Test Description.   Subparagraphs of
Section 4.20 define testing of the Turnaround Calculation using
Basic Encyclopedia as selection criteria. See description in
paragraph 4.19 above for a description of the Turnaround
Calculation.

4.20.1 Turnaround Calculation Test Case . The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific Basic Encyclopedia number
is made.

4.20.1.1 Requirements Addressed . This section addresses a test
of retrieval by Basic Encyclopedia Number 0599000409 for Country
Code 15 (Hawaii).

4.20.1.2 Prerequisite Conditions . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 2 minutes and 5 seconds to complete,
while report generation took less than 19 seconds.

4.20.1.3 Test Inputs . This will be a test of a turnaround
calculation for BE Number 0599000409.   The output from this
test is UNCLASSIFIED.

4.20.1.4 Expected Test Results . A turnaround capability report
showing the number of parking spaces available for the country
selected is the expected result. The report will also show the
country name, the BE number, the airfield name and alternate
name, the ICAO code, the coordinate for the airfield, the hours
of operation, the Apron square feet, the hardstand square feet,
total square feet, the primary runway length, the taxiway width,
the elevation and the LCN/Capacity. The LCN/capacity will be
displayed as follows:
        a. Aircraft Type
        b. Square Feet Required
        c. Ground Time
        d. Number Aircraft Parked and

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e. The turnaround per 24-hour period

4.20.1.5 <u>Criteria for Evaluating Results</u>. To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.20.1.6 <u>Test procedure</u>. The following are the steps required
to attempt this test:

a. Log onto the Sun Sparc 10 computer.

b. Click on the Airfields ICON on the GCCS Main Panel.

c. The Airfields Main Panel will display. Click on one of
    the following functions or choose <QUIT> to exit to the
    GCCS Main Panel:

        FILE   To Print of Exit
        REPORT   To access one of the report types
        HELP   To obtain help in the form of the
                    Airfields Software Users Manual

d. Execute the following to run the Turnaround Calculator
    (see Figure 5-4 of the Airfields Software User Manual
    (SUM)) for Report Types and Selection Criteria Panels.

e. Select *Turnaround Calculator* from the Reports Type
    Panel.

f. Select *Basic Encyclopedia (BE)* from the pull down menu
    generated by item e. above.

g. When the BE Number Selection Criteria Panel is
    displayed, key in the BE Number to be retrieved.

h. Press <ADD> to add place the BE Number into the
    Selection List on the right side of the screen (see
    Figure 5-8: BE Number Selection Criteria Panel in the
    Airfields Software User Manual (SUM)).

i. Move to the lower portion of the screen and select a
    Security classification, airfield status, airfield
    criteria for runway, and airfield criteria for surface
    type or accept all defaults for these categories.
    Click on <OK>. This launches the retrieval.

4.20.1.7 <u>Assumptions and Constraints</u>. There are no assumptions

or constraints associated with this test.

4.21 <u>Turnaround Calculation Test Description.</u>   Subparagraphs of Section 4.21 define testing of the Turnaround Calculation using ICAO/FAA Code and Country Code as selection criteria. See description in paragraph 4.19 above for a general description of the Turnaround Calculation.

4.21.1   <u>Turnaround Calculation Test Case</u> .   The purpose of this test is to determine validity of output received when a request for airfield information for a specific ICAO/FAA Code in a specific country code is made.

4.21.1.1   <u>Requirements Addressed</u> .   This section addresses a test of retrieval by ICAO code PHBK for Country Code 15 (Hawaii) and accepts all defaulted information from the bottom of the Selection Criteria Panel. The test will be run against an unclassified database subset using Hawaii data.

4.21.1.2   <u>Prerequisite Conditions</u> . As stated above, the Sun Sparc workstation must be running under the Sun Solaris 2.3 operating system. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system. End-to-end processing of this retrieval on the baseline system took approximately 1 minute and 49 seconds to complete, while report generation took less than 21 seconds.

4.21.1.3   <u>Test Inputs</u> .   This will be a test of a Multi-Page retrieval by country code 15 (Hawaii) and ICAO Code PHBK. The output from this test is UNCLASSIFIED.

4.21.1.4   <u>Expected Test Results</u> .   A report containing several to many pages of information about the airfield in Hawaii for the specified ICAO code is the expected result.

4.21.1.5   <u>Criteria for Evaluating Results</u> .   To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.21.1.6   <u>Test Procedure</u> . The following are the steps required to attempt this test:

   a.   Log onto the Sun Sparc 10 computer.

   b.   Click on the Airfields ICON on the GCCS Main Panel.

c.   The Airfields Main Panel will display. Click on one of
     the following functions or choose <QUIT> to exit to the
     GCCS Main Panel:

     FILE   To Print of Exit
     REPORT   To access one of the report types
     HELP   To obtain help in the form of the
                 Airfields Software Users Manual

d.   Execute the following to run the Turnaround Calculator
     (see Figure 5-4 of the Airfields Software User Manual
     (SUM)) for Report Types and Selection Criteria Panels.

e.   Select *Turnaround Calculator* from the Reports Type
     Panel.

f.   Select *ICAO-FAA Code* from the pull down menu generated
     by item e. above.

g.   When the ICAO-FAA Code Selection Criteria Panel is
     displayed, enter the ICAO-FAA Code to be retrieved.

h.   Press <ADD> to add the ICAO-FAA Code to the Selection
     List on the right side of the screen (see Figure 5-9:
     ICAO-FAA selection Criteria Panel in the Airfields
     Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a
     Security classification, airfield status, airfield
     criteria for runway, and airfield criteria for surface
     type or accept all defaults for these categories.
     Click on <OK>. This launches the retrieval.

4.21.1.7 <u>Assumptions and Constraints</u>. There are no assumptions
or constraints associated with this test.

4.22 <u>Turnaround Calculation Test Description.</u> Subparagraphs of
Section 4.22 define testing of the Turnaround Calculation for a
specific geographic location (GEOLOC) code as selection criteria.
See description in paragraph 4.19 above for a general description
of the Turnaround Calculation.

4.22.1 <u>Turnaround Calculation Test Case</u>. The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific GEOLOC code is made. It
is not necessary to supply a country code when requesting a
specific GEOLOC.

4.22.1.1   Requirements Addressed .   This section addresses a test
of retrieval by GEOLOC codes LXKM and DJAD and accepts all
defaulted information from the bottom of the Selection Criteria
Panel. The test will be run against an unclassified database
subset using Hawaii data. It has been previously determined that
the GEOLOCs listed above are Hawaii GEOLOCs.

4.22.1.2   Prerequisite Conditions . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system. End-to-end processing of this retrieval on the baseline
system took approximately 1 minute and 26 seconds to complete,
while report generation took less than 16 seconds.

4.22.1.3   Test Inputs . This will be a test of a turnaround
calculation retrieval by GEOLOC codes LXKM and DJAD. It has been
previously determined that these GEOLOCs fall within the
boundaries of Hawaii, therefore the output from this test is
UNCLASSIFIED.

4.22.1.4   Expected Test Results . A report containing several to
many pages of information about the airfield in Hawaii for the
specified GEOLOC codes is the expected result.

4.22.1.5   Criteria for Evaluating Results   . To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.22.1.6   Test Procedure . The following are the steps required
to attempt to complete this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of
          the following functions or choose <QUIT> to exit to the
          GCCS Main Panel:

                    FILE   To Print of Exit
                    REPORT   To access one of the report types
                    HELP   To obtain help in the form of the
                                Airfields Software Users Manual

    d.   Execute the following to run the Turnaround Calculator

(see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

e. Select *Turnaround Calculator* from the Reports Type Panel.

f. Select *GEOLOC Code* from the pull down menu generated by item e. above.

g. When the GEOLOC Selection Criteria Panel is displayed, enter the GEOLOC to be retrieved.

h. Press <ADD> to add the GEOLOC to the Selection List on the right side of the screen (see Figure 5-10: GEOLOC Selection Criteria Panel in the Airfields Software User Manual (SUM)).

i. Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.22.1.7 <u>Assumptions and Constraints</u>. There are no assumptions or constraints associated with this test.

4.23 <u>Turnaround Calculation Test Description.</u> Subparagraphs of Section 4.23 define testing of the Turnaround Calculation for a specific Airfield Name as selection criteria. See description in paragraph 4.19 above for a general description of the Turnaround Calculation.

4.23.1 <u>Turnaround Calculation Test Case</u>. The purpose of this test is to determine validity of output received when a request for airfield information for a specific Airfield Name is made. Since Airfields names are possibly not unique, it is necessary to supply a country code when requesting a specific Airfield Name.

4.23.1.1 <u>Requirements Addressed</u>. This section addresses a test of retrieval by airfield name "Dillingham" and country code 15 (Hawaii) and accepts all defaulted information from the bottom of the Selection Criteria Panel. The test will be run against an unclassified database subset using Hawaii data. It has been previously determined that the Airfield Name listed above is unique to any other airfield in the database and that it is located in Hawaii.

4.23.1.2 <u>Prerequisite Conditions</u>. As stated above, the Sun Sparc

workstation must be running under the Sun Solaris 2.3 operating system. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system. End-to-end processing of this retrieval on the baseline system took approximately 2 minutes and 5 seconds to complete, while report generation took less than 27 seconds.

4.23.1.3 <u>Test Inputs</u>. This will be a test of a Turnaround Calculation by airfield "Dillingham". It has been previously determined that this airfield is located in Hawaii, therefore the output from this test is UNCLASSIFIED.

4.23.1.4 <u>Expected Test Results</u>. A report containing several to many pages of information about the airfield in Hawaii for the specified airfield name is the expected result.

4.23.1.5 <u>Criteria for Evaluating Results</u>. To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.23.1.6 <u>Test Procedure</u>. The following are the steps required to attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

        FILE   To Print of Exit
        REPORT   To access one of the report types
        HELP   To obtain help in the form of the Airfields Software Users Manual

    d.   Execute the following to run the Turnaround Calculator (see Figure 5-4 of the Airfields Software User Manual (SUM)) for Report Types and Selection Criteria Panels.

    e.   Select *Turnaround Calculator* from the Reports Type Panel.

    f.   Select *Airfield Name* from the pull down menu generated by item e. above.

g.   When the Airfield Name Selection Criteria Panel is displayed, enter the Airfield Name to be retrieved.

h.   Press <ADD> to add the Airfield Name to the Selection List on the right side of the screen (see Figure 5-6: Airfield Name Selection Criteria Panel in the Airfields Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.23.1.7 Assumptions and Constraints .   There are no assumptions or constraints associated with this test.

4.24 Turnaround Calculation Test Description.   Subparagraphs of Section 4.24 define testing of the Turnaround Calculation for a specific Coordinate as selection criteria. See description in paragraph 4.13 above for a general description of the Turnaround Calculation.

4.24.1 Turnaround Calculation Test Case .   The purpose of this test is to determine validity of output received when a request for airfield information for a specific Coordinate is made.

4.24.1.1 Requirements Addressed . This section addresses a test of retrieval by Coordinate 214228N1575830W within a 500 mile radius and accepts all defaulted information from the bottom of the Selection Criteria Panel. The test will be run against an unclassified database subset using Hawaii data. It has been previously determined that this Coordinate and everything within 500 miles of it falls within the boundaries of Hawaii.

4.24.1.2 Prerequisite Conditions . As stated above, the Sun Sparc workstation must be running under the Sun Solaris 2.3 operating system. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system. End-to-end processing of this retrieval on the baseline system took approximately 2 minutes and 3 seconds to complete, while report generation took less than 12 seconds.

4.24.1.3 Test Inputs . This will be a test of a Multi-Page retrieval for Coordinate 214228N1575830W. The search will be accomplished for all airfields within a 500 mile radius of the specified coordinate. It has been previously determined that

these coordinates fall within the boundaries of Hawaii, therefore
the output from this test is UNCLASSIFIED.

4.24.1.4   Expected Test Results   .   A report containing several to
many pages of information for all airfields within a 500 mile
radius of the specified Coordinate is the expected result.

4.24.1.5   Criteria for Evaluating Results   .   To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.24.1.6   Test Procedure .   The following are the steps required
to attempt this test:

   a.   Log onto the Sun Sparc 10 computer.

   b.   Click on the Airfields ICON on the GCCS Main Panel.

   c.   The Airfields Main Panel will display. Click on one of
         the following functions or choose <QUIT> to exit to the
         GCCS Main Panel:

               FILE   To Print of Exit
               REPORT   To access one of the report types
               HELP   To obtain help in the form of the
                            Airfields Software Users Manual

   d.   Execute the following to run the Turnaround Calculator
         (see Figure 5-4 of the Airfields Software User Manual
         (SUM)) for Report Types and Selection Criteria Panels.

   e.   Select *Turnaround Calculator* from the Reports Type
         Panel.

   f.   Select *Coordinate-Radius and CCs* from the pull down
         menu generated by item e. above.

   g.   When the Coordinate-Radius Selection Criteria Panel is
         displayed, enter the following information in the
         spaces provided:
               (1)   Country Name
               (2)   Degrees, minutes, and seconds for the
                       latitude and longitude

               (3)   Select the direction (North, South, East, or
                       West for latitude and longitude
               (4)   Number of miles for the radius search

h. Press <ADD> to add the information to the Selection List on the right side of the screen (see Figure 5-11: Coordinate-Radius Selection Criteria Panel in the Airfields Software User Manual (SUM)).

i. Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click on <OK>. This launches the retrieval.

4.24.1.7 <u>Assumptions and Constraints</u>. There are no assumptions or constraints associated with this test.

4.25 <u>Selective Data Retrieval Test Description</u>. Subparagraphs of Section 4.25 define testing of the Selective Data Retrieval using Country Code as selection criteria. The Selective Data Retrieval provides information on those data items requested by the user. This report may be displayed to computer screen or a hardcopy report may be produced. User categories for retrieval specifications include the following:

a. Country Code (CC)
b. Basic Encyclopedia (BE) Number
c. ICAO-FAA Code
d. Geographic Location (GEOLOC) Code
e. Airfield Name
f. Coordinate-Radius and CC

Selection criteria by the categories listed above can be further limited by the following:

a. Security Classification (up to Secret/No Foreign (SNF) dissemination.
b. Airfield status (Military, Civilian, Joint, Active, Limited, Closed/abandoned/inactive, Heliport)
c. Maximum on Minimum Load Classification Number
d. Maximum or Minimum Runway length and width
e. Runway Surface Type
f. Maximum on Minimum Taxiway width.

The user may pick and choose from the categories listed above or the defaulted values may be selected (e.g., if the default value is selected for Airfield status, all categories (i.e., Military, Civilian, Joint, Active, Limited, Closed/abandoned/inactive, and heliport)) would be retrieved.

Additional selection criteria may be chosen by the user from the categories listed below:

a. Aerodrome Records
        b. General Information
        c. Operations Information
        d. Navigational Aids/Communications
        e. Equipment/Special Purpose
        f. Transportation
        g. Maintenance and Servicing
        h. Weather
        i. Base Services

4.25.1 <u>Selection Strategy</u> . A pictorial of the screen showing the above categories can be found in the Airfields User Manual in Figure 5-15. To select one item from either category, click the mouse button on the item to be selected. To select more than one item from either category, hold down the <CONTROL> key and click the mouse button on the items to be selected. To select every item within a category, click on the first item in the list then hold down the <SHIFT> key and click on the last item on the list. The first, last, and each item in between will be selected. Move from category to category until all items to be selected have been highlighted.

4.25.1.1 <u>Selective Data Retrieval Test Case</u> . The purpose of this test is to determine validity of output received when a request for airfield information for a specific country code is made.

4.25.1.2 <u>Requirements Addressed</u> . This section addresses a test of retrieval by county code and accepts all default information from the bottom section of the Selection Criteria Panel and/or the categories listed in a. through i. in Section 4.25 above. This test will be run against an unclassified database subset using Hawaii data.

4.25.1.3   <u>Prerequisite Conditions</u> . As stated above, the Sun Sparc workstation must be running under the Sun Solaris operating system version 2.3. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system.

4.25.1.4 <u>Test Inputs</u> . The following will be a test of a Selective Data Retrieval by country code 15 (Hawaii). The output from this test is UNCLASSIFIED.

4.25.1.5 <u>Expected Test Results</u> . A report containing the information selected by the tester for all airfields in Hawaii is the expected result.

4.25.1.6 <u>Criteria for Evaluating Results</u>. To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.25.1.7 <u>Test Procedure</u>. The following are the steps required to attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

            FILE   To Print of Exit
            REPORT   To access one of the report types
            HELP   To obtain help in the form of the
                           Airfields Software Users Manual

    d.   Execute the following to run the Selective Data Retrieval (See Figure 5-4 of the Airfields Software User Manual (SUM)).

    e.   Click on Select *Selective Data* from the Reports Type Panel.

    f.   Select *Country Code* from the pull down menu generated by item e. above.

    g.   When the Country Code/Name Selection Criteria Panel is displayed, scroll down the list of countries and select Hawaii.

    h.   Press the <ADD> button to add Hawaii to the Selection List on the right side of the screen (see Figure 5-7: Country Code/Name Selection Criteria Panel located in the Airfields Software User Manual (SUM)).

    i.   Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click the <OK> button.

    j.   Clicking on the <OK> button in i. above will cause screen two of selection criteria (categories a. through

i. in Section 4.25 above) to be displayed. Select the
items to be retrieved based on the selection strategy
outlined in Section 4.25.1 above.

k.   Click on the <OK> button to launch the retrieval.

4.25.1.8 <u>Assumptions and Constraints</u>. There are no assumptions
or constraints associated with this test.

4.26 <u>Selective Data Retrieval Test Description.</u> Subparagraphs
of Section 4.26 define testing of the Selective Data Retrieval
using Basic Encyclopedia and Country Code as selection criteria.
See description in paragraph 4.25 above for a description of the
Selective Data Retrieval.

4.26.1 <u>Selective Data Retrieval Test Case</u>. The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific Basic Encyclopedia in a
specific country code is made.

4.26.1.1 <u>Requirements Addressed</u>. This section addresses a test
of retrieval by Basic Encyclopedia Number 0599000409 for Country
Code 15 (Hawaii) and accepts all defaulted information from the
bottom of the Selection Criteria Panel. The test will be run
against an unclassified database subset using Hawaii data.

4.26.1.2 <u>Prerequisite Conditions</u>. As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system.

4.26.1.3 <u>Test Inputs</u>. This will be a test of a Selective Data
Retrieval by country code 15 (Hawaii) and BE Number 0599000409.
The output from this test is UNCLASSIFIED.

4.26.1.4 <u>Expected Test Results</u>. A detailed report of selected
information about the airfield in Hawaii for the specified BE
number is the expected result.

4.26.1.5 <u>Criteria for Evaluating Results</u>. To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.26.1.6 <u>Test procedure</u>. The following are the steps required
to attempt this test:

a. Log onto the Sun Sparc 10 computer.

b. Click on the Airfields ICON on the GCCS Main Panel.

c. The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

        FILE   To Print of Exit
        REPORT   To access one of the report types
        HELP   To obtain help in the form of the
                      Airfields Software Users Manual

d. Execute the following to run the Selective Data Retrieval (See Figure 5-4 of the Airfields Software User Manual (SUM)).

e. Click on *Selective Data* from the Reports Type Panel.

f. Select *Basic Encyclopedia Number (BE)* from the pull down menu generated by item e. above.

g. When the BE Number Selection Criteria Panel is displayed, enter the BE Number to be retrieved.

h. Press the <ADD> button to add the BE Number to the Selection List on the right side of the screen (see Figure 5-8: BE Number Selection Criteria Panel located in the Airfields Software User Manual (SUM)).

i. Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click the <OK> button.

j. Clicking on the <OK> button in i. above will cause screen two of selection criteria (categories a. through i. in Section 4.25 above) to be displayed. Select the items to be retrieved based on the selection strategy outlined in Section 4.25.1 above.

k. Click on the <OK> button to launch the retrieval.

4.26.1.7 <u>Assumptions and Constraints</u>. There are no assumptions or constraints associated with this test.

4.27 <u>Selective Data Retrieval Test Description.</u> Subparagraphs

of Section 4.27 define testing of the Selective Data Retrieval
using ICAO/FAA Code and Country Code as selection criteria. See
description in paragraph 4.25 above for a general description of
the Selective Data Retrieval.

4.27.1   <u>Selective Data Retrieval Test Case</u> .   The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific ICAO/FAA Code in a
specific country code is made.

4.27.1.1   <u>Requirements Addressed</u> .   This section addresses a test
of retrieval by ICAO code PHBK for Country Code 15 (Hawaii) and
accepts all defaulted information from the bottom of the
Selection Criteria Panel. The test will be run against an
unclassified database subset using Hawaii data.

4.27.1.2   <u>Prerequisite Conditions</u> . As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing
metrics gathered during regression testing of the WWMCCS/baseline
system.

4.27.1.3   <u>Test Inputs</u> .   This will be a test of a Selective Data
Retrieval by country code 15 (Hawaii) and ICAO Code PHBK. The
output from this test is UNCLASSIFIED.

4.27.1.4   <u>Expected Test Results</u> .   A detailed report containing
information selected by the tester about the airfield in Hawaii
for the specified ICAO code is the expected result.

4.27.1.5   <u>Criteria for Evaluating Results</u>   .   To determine validity
of data received, the output received from this test will be
compared against data received when an identical test was made
against the WWMCCS/baseline version of Airfields.

4.27.1.6   <u>Test Procedure</u> . The following are the steps required to
attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of
        the following functions or choose <QUIT> to exit to the
        GCCS Main Panel:

            FILE   To Print of Exit

REPORT   To access one of the report types
HELP   To obtain help in the form of the
           Airfields Software Users Manual

d.   Execute the following to run the Selective Data
     Retrieval (See Figure 5-4 of the Airfields Software
     User Manual (SUM)).

e.   Click on *Selective Data* from the Reports Type Panel.

f.   Select *ICAO-FAA Code* from the pull down menu generated
     by item e. above.

g.   When the ICAO-FAA Code Selection Criteria Panel is
     displayed, enter the ICAO-FAA Code to be retrieved.

h.   Press the <ADD> button to add the ICAO-FAA Code to the
     Selection List on the right side of the screen (see
     Figure 5-9: ICAO-FAA Code Selection Criteria Panel
     located in the Airfields Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a
     Security classification, airfield status, airfield
     criteria for runway, and airfield criteria for surface
     type or accept all defaults for these categories.
     Click the <OK> button.

j.   Clicking on the <OK> button in i. above will cause
     screen two of selection criteria (categories a. through
     i. in Section 4.25 above) to be displayed. Select the
     items to be retrieved based on the selection strategy
     outlined in Section 4.25.1 above.

k.   Click on the <OK> button to launch the retrieval.

4.27.1.7 <u>Assumptions and Constraints</u>. There are no assumptions
or constraints associated with this test.

4.28 <u>Selective Data Retrieval.</u> Subparagraphs of Section 4.28
define testing of the Selective Data Retrieval for a specific
geographic location (GEOLOC) code as selection criteria. See
description in paragraph 4.25 above for a general description of
the Selective Data Retrieval.

4.28.1 <u>Selective Data Retrieval test Case</u>. The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific GEOLOC code is made. It
is not necessary to supply a country code when requesting a

specific GEOLOC.

4.28.1.1 <u>Requirements Addressed </u>. This section addresses a test of retrieval by GEOLOC codes LXKM and DJAD and accepts all defaulted information from the bottom of the Selection Criteria Panel. The test will be run against an unclassified database subset using Hawaii data. It has been previously determined that the GEOLOCs listed above are Hawaii GEOLOCs.

4.28.1.2 <u>Prerequisite Conditions </u>. As stated above, the Sun Sparc workstation must be running under the Sun Solaris 2.3 operating system. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system.

4.28.1.3 <u>Test Inputs </u>. This will be a test of a Selective Data Retrieval by GEOLOC codes LXKM and DJAD. It has been previously determined that these GEOLOCs fall within the boundaries of Hawaii, therefore the output from this test is UNCLASSIFIED.

4.28.1.4 <u>Expected Test Results </u>. A Selective Data Retrieval containing information previously selected by the tester/user for the specified GEOLOC codes is the expected result.

4.28.1.5 <u>Criteria for Evaluating Results </u>. To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.28.1.6 <u>Test Procedure </u>. The following are the steps required to attempt to complete this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

FILE	To Print of Exit
REPORT	To access one of the report types
HELP	To obtain help in the form of the Airfields Software Users Manual

    d.   Execute the following to run the Selective Data Retrieval (See Figure 5-4 of the Airfields Software

User Manual (SUM)).

e.   Click on *Selective Data* from the Reports Type Panel.

f.   Select *GEOLOC Code* from the pull down menu generated by item e. above.

g.   When the GEOLOC Code Selection Criteria Panel is displayed, enter the GEOLOC Code to be retrieved.

h.   Press the <ADD> button to add the GEOLOC Code to the Selection List on the right side of the screen (see Figure 5-10: GEOLOC Code Selection Criteria Panel located in the Airfields Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click the <OK> button.

j.   Clicking on the <OK> button in i. above will cause screen two of selection criteria (categories a. through i. in Section 4.25 above) to be displayed. Select the items to be retrieved based on the selection strategy outlined in Section 4.25.1 above.

k.   Click on the <OK> button to launch the retrieval.

4.28.1.7   <u>Assumptions and Constraints</u>.   There are no assumptions or constraints associated with this test.

4.29   <u>Selective Data Retrieval Test Description.</u>   Subparagraphs of Section 4.29 define testing of the Selective Data Retrieval for a specific Airfield Name as selection criteria. See description in paragraph 4.25 above for a general description of the Selective Data Retrieval.

4.29.1   <u>Selective Data Retrieval Test Case</u>.   The purpose of this test is to determine validity of output received when a request for airfield information for a specific Airfield Name is made. Since it is possible to have duplicate Airfields names, it is necessary to supply a country code when requesting a specific Airfield Name.

4.29.1.1   <u>Requirements Addressed</u>.   This section addresses a test of retrieval by airfield name "Dillingham" and country code 15 (Hawaii) and accepts all defaulted information from the bottom of

the Selection Criteria Panel. The test will be run against an unclassified database subset using Hawaii data.

4.29.1.2 <u>Prerequisite Conditions</u>. As stated above, the Sun Sparc workstation must be running under the Sun Solaris 2.3 operating system. Other requirements as stated in paragraphs 3.1.1 and 3.1.2 must be met. While performing this test, timing constraints will also be measured and compared against timing metrics gathered during regression testing of the WWMCCS/baseline system.

4.29.1.3 <u>Test Inputs</u>. This will be a test of a Selective Data Retrieval for airfield "Dillingham". It has been previously determined that this airfield is located in Hawaii, therefore the output from this test is UNCLASSIFIED.

4.29.1.4 <u>Expected Test Results</u>. A detailed report containing user/tester selected data for the specified airfield.

4.29.1.5 <u>Criteria for Evaluating Results</u>. To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.29.1.6 <u>Test Procedure</u>. The following are the steps required to attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

FILE	To Print of Exit
REPORT	To access one of the report types
HELP	To obtain help in the form of the Airfields Software Users Manual

    d.   Execute the following to run the Selective Data Retrieval (See Figure 5-4 of the Airfields Software User Manual (SUM)).

    e.   Click on *Selective Data* from the Reports Type Panel.

    f.   Select *Airfield Name* from the pull down menu generated by item e. above.

g.   When the Airfield Name Selection Criteria Panel is
      displayed, enter the Airfield Name to be retrieved.

h.   Press the <ADD> button to add the Airfield Name to the
      Selection List on the right side of the screen (see
      Figure 5-6: Airfield Name Selection Criteria Panel
      located in the Airfields Software User Manual (SUM)).

i.   Move to the lower portion of the screen and select a
      Security classification, airfield status, airfield
      criteria for runway, and airfield criteria for surface
      type or accept all defaults for these categories.
      Click the <OK> button.

j.   Clicking on the <OK> button in i. above will cause
      screen two of selection criteria (categories a. through
      i. in Section 4.25 above) to be displayed. Select the
      items to be retrieved based on the selection strategy
      outlined in Section 4.25.1 above.

k.   Click on the <OK> button to launch the retrieval.

4.29.1.7 <u>Assumptions and Constraints</u>. There are no assumptions
or constraints associated with this test.

4.30 <u>Selective Data Retrieval Test Description.</u> Subparagraphs
of Section 4.30 define testing of the Selective Data Retrieval
for a specific Coordinate as selection criteria. See description
in paragraph 4.25 above for a general description of the
Selective Data Retrieval.

4.30.1 <u>Selective Data Retrieval Test Case</u>. The purpose of this
test is to determine validity of output received when a request
for airfield information for a specific Coordinate is made.

4.30.1.1 <u>Requirements Addressed</u>. This section addresses a test
of retrieval by Coordinate 214228N1575830W within a 500 mile
radius and accepts all defaulted information from the bottom of
the Selection Criteria Panel. The test will be run against an
unclassified database subset using Hawaii data. It has been
previously determined that this Coordinate and everything within
500 miles of it falls within the boundaries of Hawaii.

4.30.1.2 <u>Prerequisite Conditions</u>. As stated above, the Sun Sparc
workstation must be running under the Sun Solaris 2.3 operating
system. Other requirements as stated in paragraphs 3.1.1 and
3.1.2 must be met. While performing this test, timing
constraints will also be measured and compared against timing

metrics gathered during regression testing of the WWMCCS/baseline system. End-to-end processing of this retrieval on the baseline system took approximately 2 minutes and 5 seconds to complete, while report generation took less than 21 seconds.

4.30.1.3 <u>Test Inputs</u>. This will be a test of a Selective Data Retrieval for Coordinate 214228N1575830W. The search will be accomplished for all airfields within a 500 mile radius. It has been previously determined that these coordinates fall within the boundaries of Hawaii, therefore the output from this test is UNCLASSIFIED.

4.30.1.4 <u>Expected Test Results</u>. A detailed report containing information about the airfields in Hawaii for all the coordinates within a 500 mile radius of the specified Coordinate is the expected result.

4.30.1.5 <u>Criteria for Evaluating Results</u>. To determine validity of data received, the output received from this test will be compared against data received when an identical test was made against the WWMCCS/baseline version of Airfields.

4.30.1.6 <u>Test Procedure</u>. The following are the steps required to attempt this test:

    a.   Log onto the Sun Sparc 10 computer.

    b.   Click on the Airfields ICON on the GCCS Main Panel.

    c.   The Airfields Main Panel will display. Click on one of the following functions or choose <QUIT> to exit to the GCCS Main Panel:

> FILE   To Print of Exit
> REPORT   To access one of the report types
> HELP   To obtain help in the form of the
>   Airfields Software Users Manual

    d.   Execute the following to run the Selective Data Retrieval (See Figure 5-4 of the Airfields Software User Manual (SUM)).

    e.   Click on *Selective Data* from the Reports Type Panel.

    f.   Select *Coordinate-Radius and CC* from the pull down menu generated by item e. above.

    g.   When the Coordinate-Radius and CC Selection Criteria

Panel is displayed, enter the Coordinate-Radius and CC to be retrieved.

h. Press the <ADD> button to add the Coordinate-Radius and CC to the Selection List on the right side of the screen (see Figure 5-11: Coordinate-Radius and CC Selection Criteria Panel located in the Airfields Software User Manual (SUM)).

i. Move to the lower portion of the screen and select a Security classification, airfield status, airfield criteria for runway, and airfield criteria for surface type or accept all defaults for these categories. Click the <OK> button.

j. Clicking on the <OK> button in i. above will cause screen two of selection criteria (categories a. through i. in Section 4.25 above) to be displayed. Select the items to be retrieved based on the selection strategy outlined in Section 4.25.1 above.

k. Click on the <OK> button to launch the retrieval.

4.30.1.7 <u>Assumptions and Constraints</u>. There are no assumptions or constraints associated with this test.

5.   **NOTES**.

5.1   Terms and Abbreviations   .

CC	Country Code
BE	Basic Encyclopedia [number]
CFSW	Center for Software
COE	Common Operating Environment
DBMS	Data Base Management System
DDA	Designated Development Agency
DID	Data Item Description
DISA	Defense Information Systems Agency
DMAAC	Defense Mapping Agency Aerospace Center
DoD	Department of Defense
FAA	Federal Aviation Administration
GCCS	Global Command and Control Systems
GEOLOC	Geographic Location [code]
GUI	Graphical User Interface
ICAO	International Civil Aviation Organization
ISP	Indexed Sequential Processor
JIEO	Joint Interoperability & Engineering Organization
ODBC	Open Database Connectivity
OPR	Office of Primary Responsibility
PWD	Print Working Directory
RDBMS	Relational Database Management System
SNF	Secret No Foreign
STD	Standard
	Software Test Description
STP	Software Test Plan
STR	Software Test Report
SUM	Software Users Manual
SVD	Software Version Description
WWMCCS	Worldwide Military Command and Control Systems